World Journal of Surgery and Surgical Research

Commentary
Published: 11 May, 2024

The Crucial Role of Wound Care in Enhanced Recovery after Surgery Protocols – Bridging the Gap in ERAS and Surgical Wound Management

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Commentary

Despite the remarkable progress in surgical and anesthetic techniques, the implementation of standardized Enhanced Recovery after Surgery (ERAS) protocols, and our evolving understanding of wound healing, complications related to surgical wounds continue to be a significant concern across various surgical disciplines. Surgical site infections and surgical wound dehiscence pose not only physical discomfort for patients but also lead to additional healthcare visits, clinical management and at times, surgical readmissions. The management of these complications often falls on the shoulders of home care providers, family GPs, or district nurses, contributing significantly to the growing healthcare burden. This article highlights the crucial yet often overlooked aspect of ERAS protocols – postoperative wound care, its impact on patient outcomes and healthcare expenditure.

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Received Date: *04 Apr 2024*
Accepted Date: *26 Apr 2024*
Published Date: *11 May 2024*

Citation:
Sandy-Hodgetts K, Carvalhal S, Wainwright T. The Crucial Role of Wound Care in Enhanced Recovery after Surgery Protocols – Bridging the Gap in ERAS and Surgical Wound Management. World J Surg Surgical Res. 2024; 7: 1542.

The Gap in Enhanced Recovery Protocols

While ERAS protocols have undeniably proven effective in reducing postoperative complications, the focus tends to be on perioperative, intraoperative, and immediate postoperative tasks, leaving a gap in attention towards the post-discharge management of surgical wounds. Maintaining skin integrity at the incision site and supporting optimal wound healing is paramount, yet this aspect has, to date, not been emphasized in ERAS practices.

Addressing the Discrepancy in ERAS Protocols and Wound Care

Calls for advanced dressings and moist wound healing have persisted in the wound care community for over five decades. Despite continuous advocacy, the principles of surgical wound care sometimes need help finding their place in the acute care setting within the ERAS pathway, despite many areas where best practice guidelines overlap. Patients often transition home successfully post-surgery, but the emphasis on proper surgical wound care tends to diminish, leading to a gap in the continuum of care. This gap, particularly in the post-discharge surveillance phase, presents a genuine opportunity for early detection of complications and preventing severe consequences. Complications arising from inadequate wound care contribute significantly to healthcare costs globally. The subsequent need for readmission, coupled with the expenses associated with clinical consumables for managing these complications, increases healthcare spending. Studies clearly describe the economic burden of postoperative wound complications [1-4]. The financial toll is not limited to high-resource settings; low-resource settings experience disproportionate surgical wound complications, further exacerbating global health disparities [5-8].

The Global Perspective

The rise in morbidity and mortality rates related to postoperative complications highlights the global significance of the issue. Regions with limited healthcare resources face more challenges in managing these complications effectively. For example, postoperative mortality rates are elevated after surgery in Low- and Middle-Income Countries (LMICs) compared to High-Income Countries (HICs) [9,10]. A significant factor contributing to this disparity is Failure to Rescue (FTR), defined as the occurrence of a patient's death following one or more complications [11]. Patients

often experience an initial complication that can lead to additional complications, ultimately resulting in the patient's death. While it may not be possible to prevent all complications, timely recognition and appropriate intervention have the potential to reduce mortality. FTR rates vary widely, ranging from less than 1% to over 40%, depending on the patient population, despite similar complication rates [12]. Therefore, methods to improve postoperative monitoring, evaluation and escalation of care are especially needed [13]. This underscores the need for a comprehensive approach to future ERAS protocols that includes robust postoperative wound care measures.

Closing the Educational Gap: Empowering Patients for Self-Managed Wound Care

The evolution of ERAS protocols has undeniably transformed the landscape of perioperative care, marked by a significant reduction in hospital length of stay. As patients experience shorter stays in medical facilities, there arises a pressing need for enhanced patient education regarding self-managed wound care and early detection tools for healthcare providers and patients alike, work that has been led by the International Surgical Wound Complications Advisory Panel (ISWCAP) for improving surgical wound management [14]. The emphasis on postoperative wound management becomes paramount as patients transition from hospital to home, and their active involvement in recognizing signs of both optimal and suboptimal healing becomes crucial.

The success of ERAS protocols is evident in the remarkable reduction in hospital length of stay. Shorter hospital stays benefit patients by minimizing the risk of nosocomial infections and facilitating a quicker return to everyday life. However, this decrease in the duration of hospitalization also underscores the necessity of preparing patients for a more active role in their postoperative care once they return home. Patient and carer education is critical to surgical wound management to facilitate early detection and whether clinical intervention is needed.

As patients are discharged sooner, the traditional reliance on healthcare professionals for extended postoperative care becomes less feasible. Consequently, a comprehensive educational strategy is imperative. Patients must be equipped with the knowledge and skills to self-manage their wounds effectively. Understanding the signs of good wound healing versus suboptimal healing and recognizing potential complications are pivotal aspects of this education.

Empowering patients for self-managed wound care involves imparting a comprehensive understanding of the anticipated wound healing trajectory. Moreover, it necessitates guiding typical postoperative symptoms, such as mild pain, redness, and swelling, while explaining the expected resolution timeframe for these manifestations. In identifying suboptimal healing and potential complications, a pivotal aspect of patient education involves providing explicit information on warning signs. These indicators include escalating pain, persistent redness, swelling, or the emergence of abnormal discharge [15]. Emphasizing the significance of regular wound inspection is paramount, coupled with a proactive encouragement for patients to promptly report any unexpected changes observed during their wound healing journey. Therefore, guidelines for action are imperative to ensure patients are equipped to respond appropriately to signs of suboptimal healing or complications. This necessitates a clear understanding of when to seek the expertise of healthcare providers and, crucially, when emergency intervention may be warranted. Supplementary materials, encompassing written resources, multimedia tools, and interactive platforms, play a pivotal role in reinforcing educational content and accommodating diverse learning preferences [15].

Integrating telehealth and digital solutions may also be pivotal in post-discharge surveillance in the contemporary landscape dominated by technological advancements. Remote monitoring tools, video consultations, and dedicated smartphone applications facilitate continual communication between patients and healthcare providers and are the subject of ongoing studies [16,17]. This real-time connection ensures that patients receive guidance promptly and provides a conduit for healthcare professionals to intervene expeditiously when complications manifest.

The success of closing the educational gap in self-managed wound care requires a collaborative effort, transcending the confines of healthcare providers' responsibilities across primary and secondary care. Active patient engagement in their recovery journey is paramount, necessitating the absorption of information disseminated during preoperative and postoperative education sessions that continue after discharge. Moreover, the integral role played by family members and caregivers cannot be overstated, as they assume a supportive function in reinforcing the importance of vigilant wound care throughout the continuum of patient recovery.

Conclusion

While ERAS protocols have undeniably revolutionized perioperative care, it is essential to recognize the critical role of postoperative wound care in achieving optimal patient outcomes. The global impact of inadequate wound care on healthcare expenditure and patient well-being cannot be understated. Closing the gap in surgical wound management within the ERAS framework coupled with the ISWCAP tools requires a collective effort from healthcare professionals, policymakers, and patients. By acknowledging the significance of this often-overlooked aspect, we can enhance the overall success of surgical interventions and contribute to a more efficient and sustainable healthcare system.

Funding

This article was supported by an unrestricted educational grant from Molnlyke Health.

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